Exploring Aeronautics			
2006 Science			
Grade Level and Grade Span Expectations			
Rhode Island Science			
Grades 5-6			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	RI	SCI.5-6.PS3 (5-6)–8a	using data or graphs to compare the relative speed of objects.
Fundamentals of Aeronautics (145-176)	RI	SCI.5-6.PS3 (5-6)–8c	explaining that changes in speed or direction of motion are caused by forces.
Airplane Control(209-256)	RI	SCI.5-6.PS3 (5-6)–8a	using data or graphs to compare the relative speed of objects.
Airplane Control(209-256)	RI	SCI.5-6.PS3 (5-6)–8c	explaining that changes in speed or direction of motion are caused by forces.
Airplane Control(209-256)	RI	SCI.5-6.PS3 (5-6)–8d	showing that electric currents and magnets can exert a force on each other.
How an Airplane Flies	RI	SCI.5-6.PS1 (5-6)-1a	comparing the masses of objects of equal volume made of different substances.
How an Airplane Flies	RI	SCI.5-6.PS1 (5-6)–3a	explaining that regardless of how parts of an object are arranged, the mass of the whole is always the same as the sum of the masses of its parts.
How an Airplane Flies	RI	SCI.5-6.PS3 (5-6)–8c	explaining that changes in speed or direction of motion are caused by forces.
Science of Flight	RI	SCI.5-6.PS3 (5-6)–8c	explaining that changes in speed or direction of motion are caused by forces.
Integrating with Aeronautics	RI	SCI.5-6.PS3 (5-6)–8c	explaining that changes in speed or direction of motion are caused by forces.
Intro to Aeronautics (109-123)	RI	SCI.5-6.PS3 (5-6)–8a	using data or graphs to compare the relative speed of objects.
Exploring Aeronautics			
2006 Science			
Grade Level and Grade Span Expectations			
Rhode Island Science			
Grades 7-8			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	RI	SCI.7-8.LS2 (7-8)–5d	using a visual model (e.g., graph) to track population changes in an ecosystem.
Fundamentals of Aeronautics (145-176)	RI	SCI.7-8.PS3 (7-8)–8b	solving for any unknown in the expression s=d/t given values for the other two variables.
Fundamentals of Aeronautics (145-176)	RI	SCI.7-8.PS3 (7-8)–8d	making and testing predictions on how unbalanced forces acting on objects change speed or direction of motion, or both.
Fundamentals of Aeronautics (145-176)	RI	SCI.7-8.PS3 (7-8)–8e	describing or graphically representing that the acceleration of an object is proportional to the force on the object and inversely proportional to the object’s mass.

Wings(177-208)	RI	SCI.7-8.PS3 (7-8)–8d	making and testing predictions on how unbalanced forces acting on objects change speed or direction of motion, or both.
Airplane Control(209-256)	RI	SCI.7-8.PS3 (7-8)–8a	measuring distance and time for a moving object and using those values as well as the relationship s=d/t to calculate speed and graphically represent the data.
Airplane Control(209-256)	RI	SCI.7-8.PS3 (7-8)–8c	differentiating among speed, velocity and acceleration.
Airplane Control(209-256)	RI	SCI.7-8.PS3 (7-8)–8d	making and testing predictions on how unbalanced forces acting on objects change speed or direction of motion, or both.
Airplane Control(209-256)	RI	SCI.7-8.PS3 (7-8)–8e	describing or graphically representing that the acceleration of an object is proportional to the force on the object and inversely proportional to the object’s mass.
How an Airplane Flies	RI	SCI.7-8.PS1 (7-8)–1a	measuring mass and volume of both regular and irregular objects and using those values as well as the relationship D=m/v to calculate density.
How an Airplane Flies	RI	SCI.7-8.PS3 (7-8)–8e	describing or graphically representing that the acceleration of an object is proportional to the force on the object and inversely proportional to the object’s mass.
The Activity Center	RI	SCI.7-8.PS3 (7-8)–8d	making and testing predictions on how unbalanced forces acting on objects change speed or direction of motion, or both.
Science of Flight	RI	SCI.7-8.PS1 (7-8)–4c	observing the physical processes of evaporation and condensation, or freezing and melting, and describe these changes in terms of molecular motion and conservation of mass.
Science of Flight	RI	SCI.7-8.PS3 (7-8)–8a	measuring distance and time for a moving object and using those values as well as the relationship s=d/t to calculate speed and graphically represent the data.
Integrating with Aeronautics	RI	SCI.7-8.PS3 (7-8)–8d	making and testing predictions on how unbalanced forces acting on objects change speed or direction of motion, or both.
Intro to Aeronautics (109-123)	RI	SCI.7-8.PS3 (7-8)–8b	solving for any unknown in the expression s=d/t given values for the other two variables.
Intro to Aeronautics (109-123)	RI	SCI.7-8.PS3 (7-8)–8e	describing or graphically representing that the acceleration of an object is proportional to the force on the object and inversely proportional to the object’s mass.